HIGH RISK PATIENTS: DIABETES, HEART FAILURE, RENAL FAILURE, OTHERS (TCTAP A-153 TO TCTAP A-158)

TCTAP A-153

Impact of Diabetes Mellitus on 5-Year Clinical Outcomes in Patients with Significant Coronary Artery Spasm; A Propensity Score Matching Study

Seung-Woon Rha,[1] Byoung Geol Choi,[1] Se Yeon Choi,[1] Shaopeng Xu,[2] Jabar Ali,[3] Harris Ngow,[4] Ji Bak Kim,[1] Cheol Ung Choi,[1] Eung Ju Kim,[1] Dong Joo Oh[1]
[1]Korea University Guro Hospital, Korea (Republic of); [2]Tianjin General Hospital, China; [3]Korea University Guro Hospital, Pakistan; [4]Hospital Tengku Ampuan Afzan, Malaysia

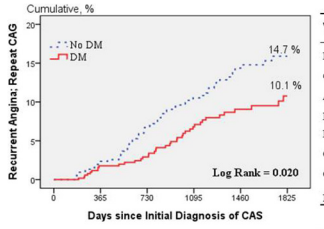
BACKGROUND Diabetes mellitus (DM) is known to be a risk factor of significant coronary artery disease (CAD). However, there is no currently available data with larger study population regarding long-term clinical outcomes of DM with CAS in real world clinical practice, particularly in a series of Korean population.

METHODS A total of 3,360 consecutive patients (pts) without significant CAD underwent acetylcholine (Ach) provocation test and diagnosed as significant CAS between Nov. 2004 and May. 2014 were enrolled. Significant CAS was defined as >70% of narrowing by incremental intracoronary injection of 20, 50 and 100 μg into left coronary artery. Patients were divided into two groups based on the presence of DM: the DM group (n=568), the non- DM group (n=2,762). To adjust potential confounders, a propensity score matched (PSM) analysis was performed using the logistic regression model. Major clinical outcomes up to 5 years were compared between the two groups.

RESULTS After PSM analysis, 2 propensity-matched groups (561pairs, n = 1122, C-statistic=0.690) were generated and the baseline characteristics of the two groups were balanced. At 5 years, despite of similar incidence of individual hard endpoints including mortality, myocardial infarction and revascularization, the DM group was associated with lower incidence of recurrent angina requiring repeat coronary angiography than the non-DM group (HR; 0.60, 95% C.I; 0.40-0.90, p=0.014, Table and Figure).

CONCLUSION Despite the expected endothelial dysfunction, DM was negatively associated with CAS and recurrent chest pain, suggesting that the mechanisms and risk factors of CAS may be different from those of CAD.

Table. Clinical Outcomes up to 5-years after Propensity Score Matching.



Variable, N (%)	HR (95%C.I)	p Value
DM	0.601 (0.400-0.902)	0.014
Gender	1.734 (1.052-2.858)	0.031
Age	1.024 (1.003-1.046)	0.022
Hypertension	0.992 (0.655-1.502)	0.971
Dyslipidemia	1.356 (0.912-2.018)	0.132
Current smokers	1.312 (0.797-2.158)	0.284
Current alcoholics	0.865 (0.540-1.387)	0.549
Myocardial Bridge	0.788 (0.472-1.317)	0.365

TCTAP A-154

Outcomes of Non-Revascularized Unprotected Left Main Coronary Artery Stenosis

Jae Hyung Roh,[1] Se Hun Kang,[1] Min Su Kim,[1] Hee-soon Park,[1] Byeong Joo Bae,[1] Sang Soo Cheon,[1] Pil Hyung Lee,[1] Mineok Chang,[1] Hyun Woo Park,[1] Sung Han Yoon,[1] Jung-Min Ahn,[1] Duk-Woo Park,[1] Soo-Jin Kang,[1] Seung-Whan Lee,[1] Young-Hak Kim,[1] Cheol Whan Lee,[1] Seong-Wook Park,[1] Seung-Jung Park[1]
[1]Asan Medical Center, Korea (Republic of)

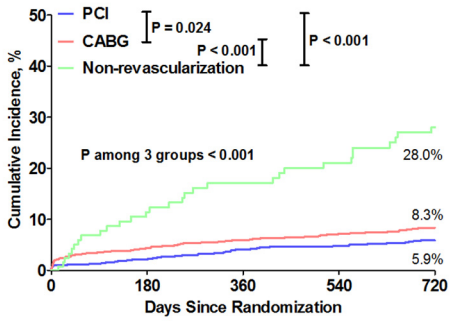
BACKGROUND There is a lack of data regarding the outcomes of medical treatment for stable coronary artery disease (SCAD) involving unprotected left main coronary artery (ULMCA) stenosis.

METHODS From March, 1992 to February, 2011, a total of 3041 patients with significant ULMCA stenosis were enrolled in ASAN-MAIN registry. After excluding the patients in unstable clinical conditions (N = 342), we analyzed those who declined any revascularization procedures (N=153), despite of their assigned physicians' prediction of an acceptable degree of peri-procedural risks and the severity of ULMCA stenosis compelling revascularization, compared with those who underwent percutaneous coronary intervention (PCI, N=993), and coronary artery bypass grafting (CABG, N=1372).

RESULTS The rates of 2-year follow-up were 83.3%, 86.5%, and 66.7% in the PCI, CABG, and non-revascularization groups, respectively (p<0.001). The patients enrolled in the CABG, and the non-revascularization groups were older (PCI vs. CABG vs. Non-revascularization, 60.8±11.2 vs. 63.4±9.1 vs. 66.3±10.9, p < 0.001), and more likely to have lower ejection fraction (61.2±7.6 vs. 57.2±11 vs. 57.9±12.2, p<0.001) diabetes (PCI; 31.6%, CABG; 37.6%, Non-revascularization; 36.6%) than the PCI group. Furthermore, other clinical and angiographic risk factors were more prevalent in these groups, such as diabetes, congestive heart failure, peripheral vascular disease, multivessel disease, distal bifurcation involvement, and right coronary artery disease. The crude 2-year rates of MACCE (PCI, 5.9%; CABG, 8.3%; Non-revascularization, 28.0%; p among the three groups < 0.001) and all of the individual outcomes were higher in the medication group than the others, except for that of stroke showing insignificant difference. Multivariate Cox's proportional hazards model revealed that Non-revascularization was an independent predictor of MACCE (Hazard Ratio [HR], 0.362; 95% Confidence Interval [CI], 0.205 - 0.639; p value < 0.001 for PCI vs. Non-revascularization, HR, 0.376; 95% CI, 0.225 - 0.629; p value < 0.001 for CABG vs. Non-revascularization).

CONCLUSION Although clinical presentation was stable, non revascularized ULMCA stenosis was associated with the higher mortality.

Figure. MACCE over time



No. at risk					
PCI	994	939	872	837	783
CABG	1374	1257	1192	1141	1084
Non-revascularization	153	96	87	81	72

TCTAP A-155

Cyclophilin A Is Associated with Peripheral Artery Disease and Chronic Kidney Disease in Geriatrics: The Tianliao Old People (TOP) Study

Ping-Yen Liu[1]
[1]National Cheng Kung University Hospital, Taiwan

BACKGROUND Cyclophilin A (CyPA), secreted by vascular smooth muscle cells in response to oxidative stress, is important in the pathogenesis of progressive peripheral arterial occlusion disease (PAOD), which is common among chronic kidney disease. We explored the prevalence of PAOD in Taiwan's elderly (^{3} 65 years old) population and its association with CyPA and renal function.

METHODS Residents of Tianliao District, a rural community in southern Taiwan, were surveyed. Anankle-brachial index (ABI) < 0.91 was defined as PAOD. Chronic kidney disease (CKD) was defined based on eGFR levels < 60 mL/min/1.73m^2. Serum CyPA was measured by ELISA.

RESULTS Of the 473 participants, 68 (14.4%) had PAOD. The lower eGFR, lower BMI, higher glycated hemoglobin, and higher pulse pressure were independent predictors of ABI <0.91. Serum CyPA levels in participants with PAOD were significantly higher than those with normal ABI values (47.3 ± 0.4 vs. 25.5 ± 0.2 ng/mL, p <0.001). Moreover, eGFR inversely correlated with serum CyPA level (p < 0.05) in participants with CKD, but not in participants with normal renal function.